

Notice of Allowability

Application No.

09/693,938

Examiner

Charles Chow

Applicant(s)

SAMPATH ET AL.

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/5/2006.
2. ☒ The allowed claim(s) is/are 1,3,4,6-13,15-19,21-23,25,28-32,34-36,39-45,47,48,50-61,63-65,67,69-73,75-77 and 79-83.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>6/14/2006</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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Add interview summary

Detailed Action

1. This office action is for amendment received on 5/5/2006.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment has been given from attorney John Curtin in a telephone interview via email on June 14, 2006,

for the following the modifications:

In line 1 of **claim 1**, insert ---in a wireless communications system--- after "A frame selection system", before "comprising".

In line 1 of **claim 25**, insert ---in a wireless communications system--- after "A frame selection unit", before "adapted".

In line 1 of **claim 39**, insert ---in a wireless communications system--- after "A frame selection unit", before "adapted".

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Regarding applicant's amendment, claims 1, 3-4, 6-13, 15-19, 21-23, 25, 28-32, 34-36, 39-45, 47-48, 50-61, 63-65, 67, 69-73, 75-77, 79-83 are allowable over the prior art of record, for the features in the independent claims, for the frame selection system, unit,

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comprising base station, to generate at least one enhanced frame comprising at least one error burst representation;

generate at least one enhanced frame copy comprising substantially the same date, structure and format of said at least one enhanced frame having at least one error burst representation; and

a frame selection unit adapted to combine an acceptable portion of the enhanced frame with an acceptable portion of the enhanced frame copy based on the error burst representations to form a combined frame of a higher quality than the enhanced frame at least during soft-handoff in claims 1 & 45; the analyzing in claims 25 & 67; the combining & the at least one error burst representation that includes an error start indicator and error length indicator in claims 39 & 67, for improving the handoff with the better enhanced frame generated by combining enhanced frame the enhanced frame copy, based on the frame quality.

The dependent claims are also allowable due to their dependency upon the independent claim and comprising additional claimed features associated to the features of the independent claims.

The closest prior art to **Padovani et al. (Us 6,222,830 B1)** teaches the receiving data stream frames F(A)(1)-F(A)(3), and data frame F(B)(1)-F(B)(3), having respective frame quality metric FQM for each data frame. The selector resource 500 combines the acceptable portion from frames F(A)(1)-F(A)(3) and frames B, F(B)(1)-F(B)(3), to form new data stream sequence C with frames F(A)(3), F(B)(2), F(A)(1) based on the FQM error burst representation [Fig. 5, col. 9, lines 19-40], but fails to teach the error burst representation of the enhanced frame having the error start indicator and the error length indicator, the

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enhanced frame copy comprising substantially same data, structure and format of said at least one enhanced frame having at least one error burst representation.

Kusaki et al. (US 6,754,495) Kusaki teaches the duplicating processing unit 660 selects packet with lower error rate and discarding packet having worse error rate of the first & second packets [col. 13, lines 1-38; col. 14, lines 15-63 & Kusaki's claim 2-3], the selecting, combining, the header information with lowest error rate [abstract], but fails to teach the above allowable features.

Other prior arts in below has been considered, but they fail to teach the above allowable claim features.

Strawczynski (US 6,381,232 B1) teaches the error pattern for frame A, B, having errors marked with "x" in Fig. 6a-6b [Fig. 6c-6d; col. 6, line 7 to col. 7, line 37], for the soft handoff [col. 2, lines 50-52].

Neumiller et al. (US 6,226,283 B1) teaches the frame quality indicator FQI which can be dynamically adjusted for the forward error correction FEC [col. 4, lines 1-34, abstract].


Hendrickson et al. (US 5,974,584) teaches the threshold of the number of errors in a frame for constructing an output signal, based on the scheme that none of the data portion of the subsequent frames are used until the parity error is less than a second threshold [col. 10, lines 9-15; col. 11, lines 11-16].

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow 

June 9, 2006.


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